CLAIMS

What is claimed is:

1. A memory for storing data for access by an application program being executed on a computer system, comprising:

a data structure stored in said memory, the data structure including or referring to:

a name;

a content repository identifier;

a plurality of properties;

a plurality of property definitions associated with the plurality of properties; and

wherein the data structure is logically part of a virtual content repository (VCR), and wherein the VCR represents at least one content repository.

2. The memory of claim 1 wherein the content repository identifier comprises:

a repository name; and

a content identifier that is unique for the content repository.

3. The memory of claim 1, further comprising:

a reference to a parent data structure.

4. The memory of claim 1 wherein:

a property is an association between a name and at least one value; and

wherein the at least one value can be stored in one of the at least one content repositories.

5. The memory of claim 4 wherein:

the at least one value can be a text string, a number, an image, an audio/visual presentation, or binary data.

6. The memory of claim 1 wherein:

a property definition can specify at least one of the following for a property:

property choices;

a reference;

a data type;

whether the property is mandatory;

whether the property is multi-valued;

whether the property is primary;

whether the property is read-only; and

whether the property is restricted.

7. The memory of claim 1 wherein:

the data structure is hierarchically related to other data structures and the at least one content repository.

8. The memory of claim 7 wherein:

the data structure is hierarchically inferior to the at least one content repository.

9. A computer readable medium containing a data structure for representing

information in a virtual content repository (VCR), said data structure comprising:

a name;

a content repository identifier;

a plurality of properties;

a plurality of property definitions associated with the plurality of properties; and

wherein the data structure is logically part of the VCR, and wherein the VCR represents at least one content repository.

10. The computer readable medium of claim 9 wherein the content repository identifier comprises:

a repository name; and

a content identifier that is unique for the content repository.

11. The computer readable medium of claim 9, further comprising:

a reference to a parent data structure.

12. The computer readable medium of claim 9 wherein:

a property is an association between a name and at least one value; and

wherein the at least one value can be stored in one of the at least one content repositories.

13. The computer readable medium of claim 12 wherein:

the at least one value can be a text string, a number, an image, an audio/visual presentation, or binary data.

14. The computer readable medium of claim 9 wherein:

a property definition can specify at least one of the following for a property:

property choices;

a reference;

a data type;

whether the property is mandatory;

whether the property is multi-valued;

whether the property is primary;

whether the property is read-only; and

whether the property is restricted.

15. The computer readable medium of claim 9 wherein:

the data structure is hierarchically related to other data structures and the at least one content repository.

16. The computer readable medium of claim 15 wherein:

the data structure is hierarchically inferior to the at least one content repository.

17. A memory for storing virtual content repository (VCR) information for access by an application program being executed on a computer system, comprising:

a data structure stored in said memory, the data structure including:

a root node;

a first set of nodes wherein each node in the first set can be hierarchically related to at least one other node in the first set, and wherein all nodes in the first set are hierarchically inferior to the root node;

a second set of nodes associated with the first set of nodes, wherein the second set of nodes provides schema information for the first set of nodes;

wherein each one of the first set of nodes can represent one of: 1) a node container; 2) repository content; and 3) a repository; and

wherein each one of the first set of nodes can be associated with the at least one property.

18. The memory of claim 17 wherein:

the VCR represents one or more content repositories as a single repository.

19. The memory of claim 17 wherein:

wherein each one of the first set of nodes has an identifier that indicates its logical location in the hierarchy formed by the first set of nodes;

20. The memory of claim 17 wherein:

a property is an association between a name and at least one value.

21. The memory of claim 20 wherein:

the at least one value can be a text string, a number, an image, an audio/visual presentation, or binary data.

22. The memory of claim 17 wherein:

a second node belonging to the second set of nodes can be associated with at least one property definition.

23. The memory of claim 22 wherein:

a property definition can specify at least one of the following for a property:

property choices;

a reference;

a data type;

whether the property is mandatory;

whether the property is multi-valued;

whether the property is primary;

whether the property is read-only; and

whether the property is restricted.

24. The memory of claim 22 wherein:

there is a property definition for each property associated with each one of the first set of nodes.

25. The memory of claim 17 wherein:

a first node belonging to the first set of nodes that represents a container can be hierarchically inferior to a second node belonging to the first set of nodes that represents one of: 1) a container; and 2) a repository.

26. The memory of claim 17 wherein:

a first node belonging to the first set of nodes that represents a repository

can be a direct child of the root node.

27. The memory of claim 17 wherein:

a first node belonging to the first set of nodes that represents content can be a direct or indirect child of a second node belonging to the first set of nodes that represents one of: 1) repository content; 2) a container; and 3) a repository.

28. A computer data signal embodied in a transmission medium, comprising:

a segment including a name;

a segment including a plurality of content repository identifiers;

a segment including a plurality of properties;

a segment including a property definition associated with the property; and

wherein the segments can be combined to form a data structure that is logically part of a virtual content repository (VCR), and wherein the VCR represents at least one content repository.

29. The data signal of claim 28 wherein the content repository identifier comprises:

a repository name; and

a content identifier that is unique for the content repository.

30. The data signal of claim 28, further comprising:

a segment including a reference to a parent data structure.

31. The data signal of claim 28 wherein:

a property is an association between a name and at least one value; and

wherein the at least one value can be stored in one of the at least one content repositories.

32. The data signal of claim 31 wherein:

the at least one value can be a text string, a number, an image, an audio/visual presentation, or binary data.

33. The data signal of claim 28 wherein:

a property definition can specify at least one of the following for a property:

property choices;

a reference;

a data type;

whether the property is mandatory;

whether the property is multi-valued;

whether the property is primary;

whether the property is read-only; and

whether the property is restricted.

34. The data signal of claim 28 wherein:

the data structure is hierarchically related to other data structures and the at least one content repository.

35. The data signal of claim 34 wherein:

the data structure is hierarchically inferior to the at least one content

repository.

36. A computer data signal embodied in a transmission medium, comprising:

a segment including a root node;

a segment including a first set of nodes wherein each node in the first set can be hierarchically related to at least one other node in the first set, and wherein all nodes in the first set are hierarchically inferior to the root node;

a segment including a second set of nodes, wherein the second set of nodes provides schema information for the first set of nodes;

wherein each one of the first set of nodes can represent one of: 1) a node container; 2) repository content; and 3) a repository; and

wherein each one of the first set of nodes is associated with a plurality of properties.

37. A memory for storing data for access by an application program being executed on a computer system, comprising:

a first object to provide a first group of services related to interacting with a hierarchical namespace;

a plurality of second objects to provide a second group of services related to associating information with the first object;

a plurality of third objects to provide a third group of services related to describing attributes of the plurality of second objects;

wherein the first object is logically part of a virtual content repository (VCR), and wherein the VCR represents at least one content repository.

38. The memory of claim 37 wherein the first group of services comprises:

first functions that enable associating the plurality of first objects with locations in the namespace.

39. The memory of claim 37 wherein the second group of services comprises:

second functions that enable creating, reading, updating and deleting the information.

40. The memory of claim 37 wherein the third group of services comprises:

third functions that enable specifying at least one of the following for the plurality of second objects:

property choices;

a reference;

a data type;

whether the property is mandatory;

whether the property is multi-valued;

whether the property is primary;

whether the property is read-only; and

whether the property is restricted.

41. The memory of claim 37 further comprising:

a plurality of fourth objects to specify locations of the plurality of first objects in the namespace.

42. The memory of claim 41 wherein each of the plurality of fourth objects

includes:

a content repository name; and

a content identifier that is unique for the content repository.

43. The memory of claim 37 wherein each of the plurality of first objects includes:

a reference to a parent object.

44. The memory of claim 37, further comprising:

a fifth object to provide a fifth set of services related to searching the VCR;

45. The memory of claim 37 wherein:

each of the plurality of second objects associates a name and at least one value; and

wherein the at least one value can be stored in one of the at least one content repository.

46. The memory of claim 45 wherein:

the at least one value can be a text string, a number, an image, an audio/visual presentation, or binary data.

47. The memory of claim 37 wherein:

each of the plurality of first objects is hierarchically related to other objects and to the at least one content repository.

48. The memory of claim 37, further comprising:

a sixth object to provide a sixth set of services related to configuring the VCR.

49. A computer data signal embodied in a transmission medium, comprising:

a segment including a first object to provide a first set of services related to interacting with a hierarchical namespace;

a segment including a plurality of second objects to provide a second group of services related to associating information with the first object;

a segment including a plurality of third objects to provide a third group of services related to describing attributes of the second object;

wherein the first object is logically part of a virtual content repository (VCR), and wherein the VCR represents at least one content repository.